

Kolsh

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **25**
- SRM **3.5**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **3 %**
- Size with trub loss **23.8 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **28.5 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23.4 liter(s)**

Steps

- Temp **45 C**, Time **1 min**
- Temp **52 C**, Time **10 min**
- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **15 min**

Mash step by step

- Heat up **18.2 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **1 min** at **45C**
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **65C**
- Keep mash **15 min** at **72C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **28.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4.6 kg (88.5%)	80 %	4
Grain	Pszeniczny	0.2 kg (3.8%)	85 %	4
Grain	Płatki pszeniczne	0.4 kg (7.7%)	80 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	15 min	11.5 %
Boil	lunga	13 g	60 min	11.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM42 Stare Nadreńskie	Ale	Liquid	45 ml	Fermentum Mobile